

Missouri Wineries: Present Status and Future Scenarios



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Executive Summary

Missouri has a rich history in winemaking that reflects the cultural influences of its earliest settlements. Since the setback of Prohibition, the industry has reestablished itself. There are 47 wineries in the state today, 5 of which were newly opened in 2002-03. The state produces a number of award-winning wines from grape varieties that are somewhat uncommon, a trait sought after by wine enthusiasts. Challenges confront the industry, however, from the pressures of globalizing markets and the difficulties faced by many rural regions in the country that lack the critical mass of infrastructure, transportation routes and human capital to thrive. This report suggests that a regionalization strategy that consciously links the state's wineries to a growing agri-tourism sector via regional identity marketing could help assure growth in the industry while also supporting broader rural development aims.

The global and national market context for Missouri wine reflects an increasingly competitive wine market, particularly for mass produced table wines. Wine production continues to grow worldwide, but then so does consumption. The demographics of wine consumption are shifting somewhat, with the most notable trend that of a younger generation (age 21-34) showing a pronounced interest in wine in their diet. The growing Latino population in the US may also be a somewhat hidden market, as research indicates that 25% of Latinos already consume wine.

Between 1995 and 2001, the amount of wine consumed in Missouri that was produced in the state rose 60%. But this was still a small percentage of the total amount of wine sold in the state, indicating that there is ample room for sales of Missouri wine to grow within Missouri alone. In 2001, Missouri had 870 bearing acres of land in grapes, but more Missouri-grown grapes for wine are still in demand.

An input/output economic analysis was conducted with financial data from the state's wineries to assess the impact the industry has on the state's economy. Unfortunately, a major winery, accounting for approximately 30% of gallons produced in 2001, declined to participate in the survey, and so the final numbers appear lower than they are in reality. Nonetheless, the impacts are quite significant. Overall, Missouri wineries create a total of 259 jobs in the state, generate an economic output of \$24.6

million, and contribute \$6.5 million in income to Missouri workers (note, again, that these figures do not include those of the non-participating winery). For every person directly employed in the wine industry, an additional .66 jobs are created elsewhere in the Missouri economy. For every dollar of their economic activity (output), an additional .82 cents of economic activity occurs in the state. And for every dollar of income earned by employees in the wine industry, there is an additional .79 cents in income earned by employees of other economic sectors connected to it.

In considering the future for Missouri's wineries, several major trends that are taking place in rural regions in the US and abroad are considered here as part of the context. Regionalization is discussed as an important way to proactively counter negative impacts of globalization by building a critical mass of interconnected businesses that map a strategy for their future together. Regional business networks can tap into partnerships with government and education to improve the success of their efforts.

Two other major trends that relate directly to the wine industry are the emergence of regional food cuisines as a response to consumer demand for "local" foods, and the rapid growth of agritourism in rural areas. Because wineries can connect farming (grape production), landscapes (vineyards), craft (the art of winemaking itself), gastronomy (restaurant and food businesses) and tourism (particularly agritourism), they are seen here as critical links in creating regional identity and a sense for visitors of rural regions as destination locations. With tourism as one of the top three industries in Missouri, along with manufacturing and agriculture, a focus on regional networks for marketing Missouri wines would appear to be a logical next step for the industry.

Achieving the benefits of a more regional approach would require increased communication and cooperation among private industry, government and education. Cross-sectoral alliances will have to be actively pursued. With such networks in place, however, challenges that face the industry can be managed so that an orientation towards high quality, distinctive wines, marketed directly to the extent possible, can help assure a bright future for Missouri wines for many years to come.

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Introduction

Missouri claims a long and illustrious history in wine making. As early as the 1750s, Frenchman René Cruchet visited the middle Mississippi River valley and observed that the inhabitants gathered a grape “somewhat like the pinot noir of France, but smaller and less sweet...making large quantities of wine from it.”¹ By the 1830s, vineyards were being cultivated along the northern banks of the Missouri River in the Augusta region (Church 1982). Then, in 1837, the German Settlement Society of Philadelphia sent out scouts to locate a site for a new town they wanted to build in the west. Instructed that the new location had to lend itself to wine grapes, the scouts were led to the area of what is now Hermann, further west on the Missouri River.

The hopes of the German settlers who followed were fulfilled and a number of wineries were established that still thrive today, including Stone Hill (1847), Hermannhoff (1852) and Adam Puchta (1855). In 1851, Missouri wines won eight of twelve gold medals at the Vienna Worlds Fair (Satterfield 2001). In the late 1800s, when the phylloxera plague hit the vineyards of France, it was a professor from the University of Missouri and a winemaker from Neosho who found that European grape stock could be grafted onto Missouri root stock. They literally saved the French wine industry. By the turn of the century, Missouri’s wine culture was blooming and Stone Hill Winery had become the second largest in America and third largest in the world (Earngey 1995).

The arrival of American Prohibition (1920-1933) cut the legs from under Missouri’s wine industry for a time. But the aptness of the state for wine production seemed certain to reassert itself, due in no small measure to the large number of small and medium-sized farms suitable for family farm wineries, and the determination and ingenuity of its people. Missouri’s climate was never an easy one for growing the classic vinifera grape varieties used widely for wine production in California and Europe. Cold continental winters with unpredictable temperature swings shorten the growing season and vine diseases can be hard to control. But following Missouri’s rescue of French wine grape production, the favor was returned in the form of French hybrid grapes, many of which were well adapted to Missouri growing conditions. The result was a fascinating

¹ My thanks to Walter Schroeder for this quotation from “La Vie en Louisiane de 1752 à 1756, d’après un manuscrit bordelais inédit,” in Cruchet (1939).

assortment of wines that distinguish themselves by their style and by a variety not often found in other parts of the country. By the 1960s and 70s, Missouri wine production was clearly on the rebound, so much so that a 1979 wine industry task force report predicted a doubling of Missouri wine production by 1985 (Church 1982).

Today, there are 47 wineries in Missouri, 5 of which were established in 2002-03 (see map in Figure 1). Appendix A also contains a complete listing of Missouri wineries and their addresses.

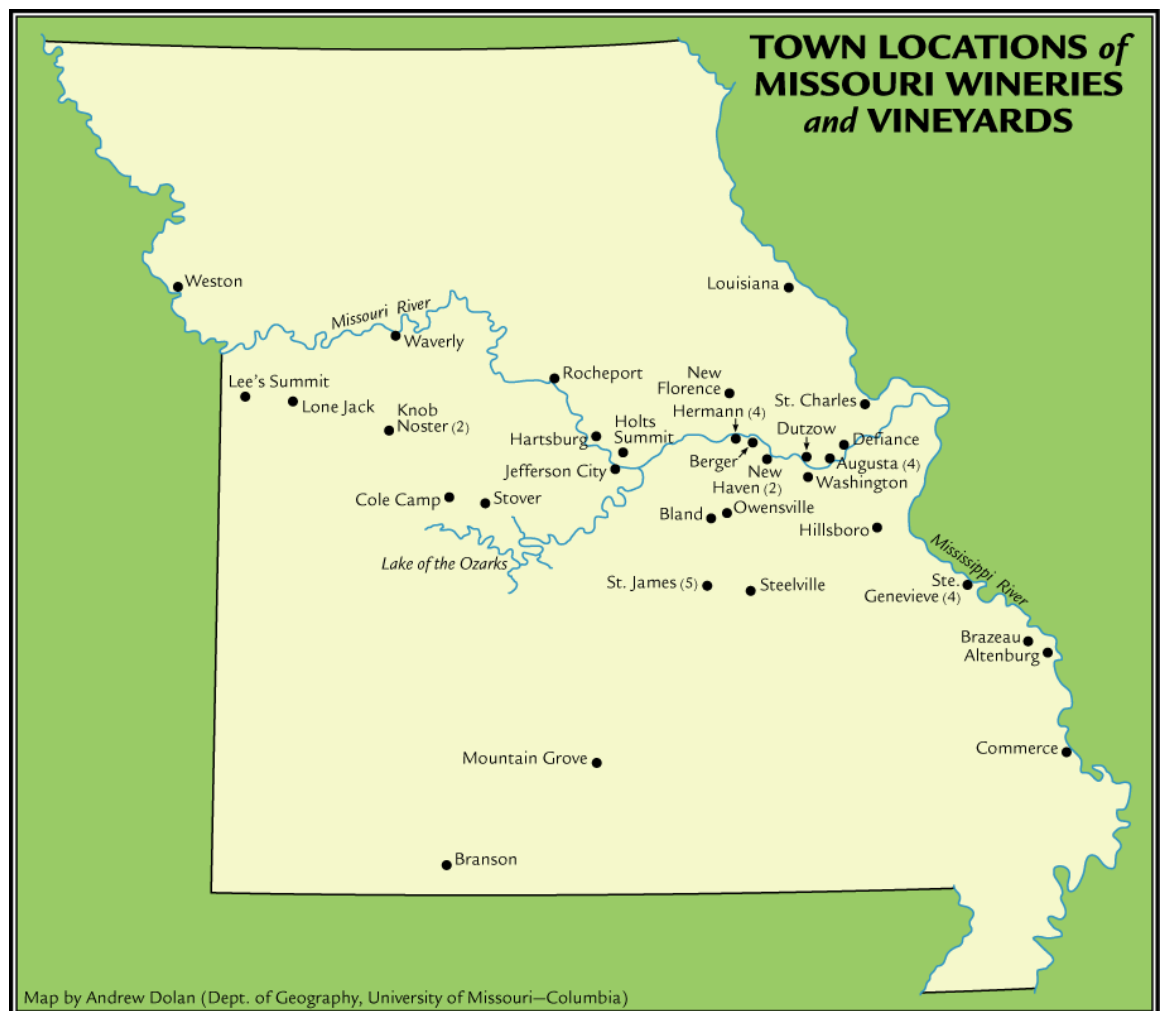


Figure 1

With the help of the Missouri Department of Agriculture's Grape & Wine Program, Missouri's wine producers have continually expanded their markets in the state, as well as nationally and internationally. They have also benefited from the research and training

assistance of Southwest Missouri State's Midwest Viticulture and Enology Center to make constant improvements in the quality of their offerings. Appendix B reflects some results of their hard work, a sampling of their many awards and achievements taken from just the last few months preceding this publication.

But the image of the good life that is conjured up by thoughts of owning a winery may be deceiving without including in that picture the many challenges that Missouri wine producers face. The industry requires a high level of capitalization, is subject to the cycles of weather and the market, and in recent years has been opened to ever fiercer competition from major US producing states as well as from countries abroad. Along with many other industries in the state, the Missouri wine industry is being drawn into the complex of economic changes known collectively as globalization, with all the opportunities and perils that this entails.

This report takes stock of where Missouri's wine production is today in relation to national and international markets, and explores some of the trends that will affect wine production and consumption into the future. It also relates findings from a survey of Missouri wineries carried out in 2002-03. The survey gathered data for an evaluation of the economic impacts of the industry on the state. Looking ahead to new regional business opportunities for rural areas, the survey also explored the degree of cooperative interaction among the wineries, and between wineries and other businesses.

While there are challenges ahead, Missouri is in many ways exceptionally well poised to face them. Some known obstacles are discussed here, along with suggestions on how the industry can position itself to take advantage of national and international trends in regionalization and agritourism to secure a bright future. As this report documents, the stakes are high, not only for the wine industry itself but also for a large number of other Missouri businesses that are touched directly or indirectly by their success.

The Global and National Context for Marketing Missouri Wines

Global Trends

Between 1995 and 2002, global wine production has increased from approximately 25.5 to 26.8 million metric tons, or roughly 5%. Over this eight year period there has been a cyclical rise and fall in global production, with a high of over 29 million metric tons of wine produced at the turn of the century in 2000 (Figure 2).

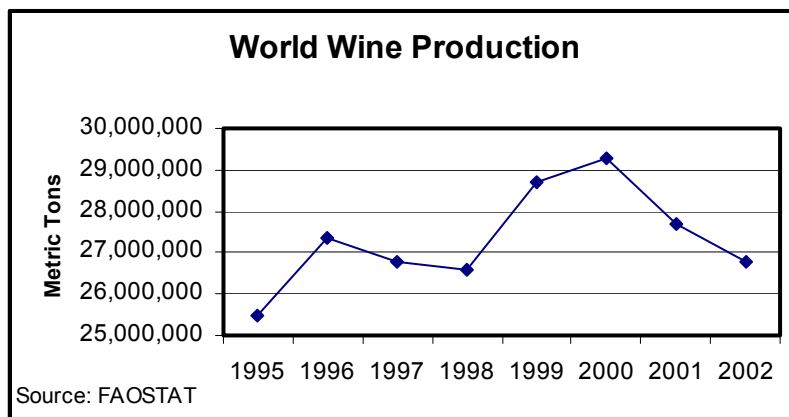


Figure 2

As of 2002, the top five wine producing countries in the world, ranked from first to fifth, were France, Italy, Spain, the United States and Australia. Between 1995 and 2002, the top two producing countries, France and Italy, have seen a small decrease in production offset by increased production in the third, fourth and fifth ranked countries, Spain, the United States and Australia respectively. While these trends seem incremental and describe only the past 8 years, they do point toward an increasingly competitive environment for the leading wine producing countries (Figure 3).

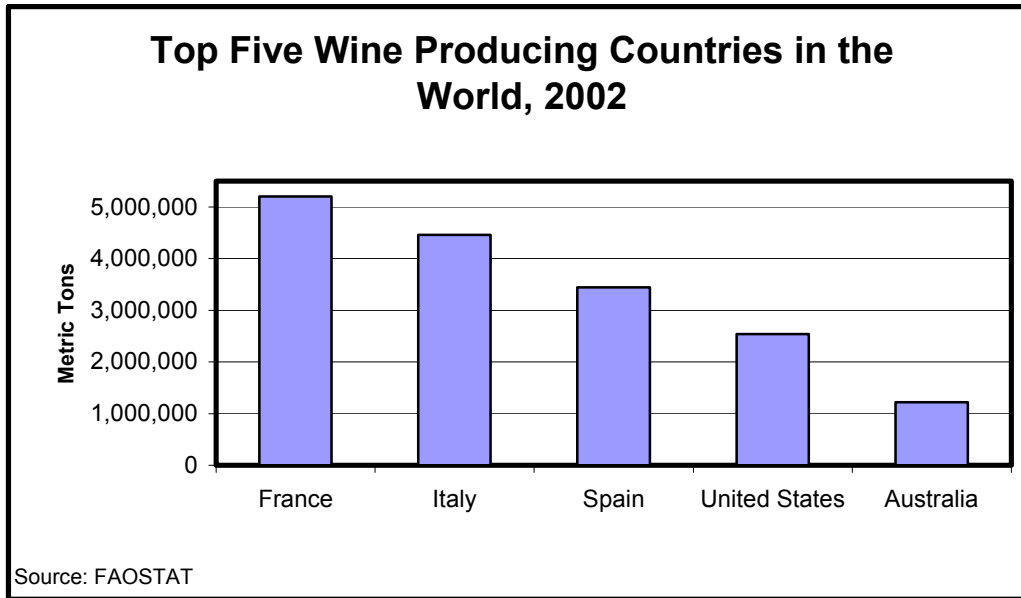


Figure 3

Between 1996 and 2000, global wine consumption grew from 217,562 to 219,833 thousand hectoliters, or approximately 1%. In 2000, the top five wine consuming countries were France, Italy, the United States, Germany and Spain. From 1996 to 2000, France, Italy and Spain all saw a small fall in wine consumption while the United States and Germany both saw small increases in consumption (Figure 4).

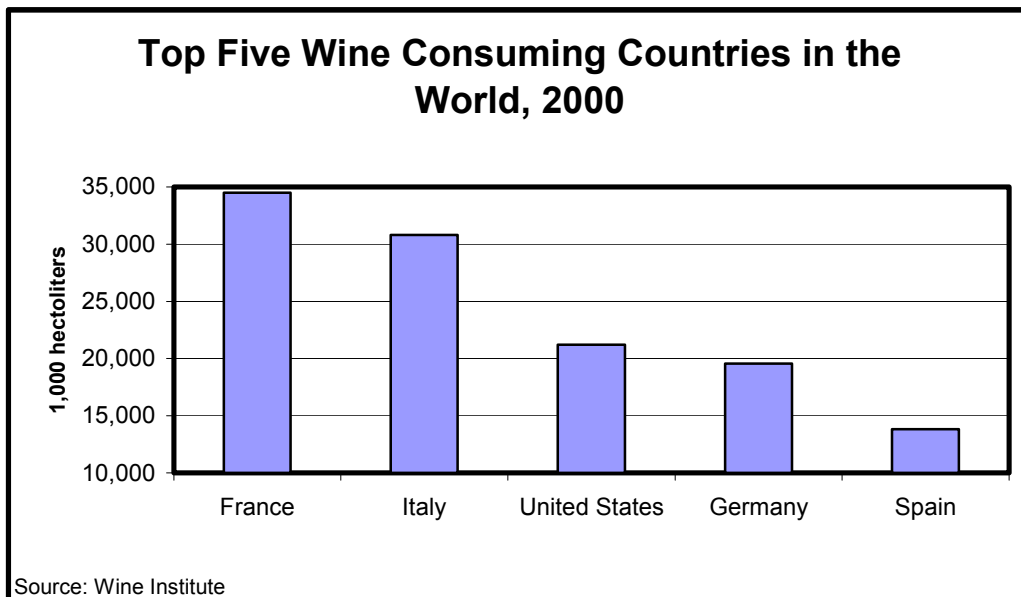


Figure 4

If we put these trends together, the past 7 to 8 years have seen an overall growth in both wine production and consumption worldwide. The top two countries, France and Italy, have seen a small fall on both measures, while the United States has experienced a slight increase.

National Trends

From 1995 to 2002, the total volume of wine entering US trade channels from both domestic and international sources has risen from 464 million gallons to 595 gallons, or around 28%. Over this time, US wine production, while somewhat erratic, has increased from 270,969,754 gallons in 1995 to 333,849,600 gallons of production in 2001, or an overall increase of about 23% (Figure 5).

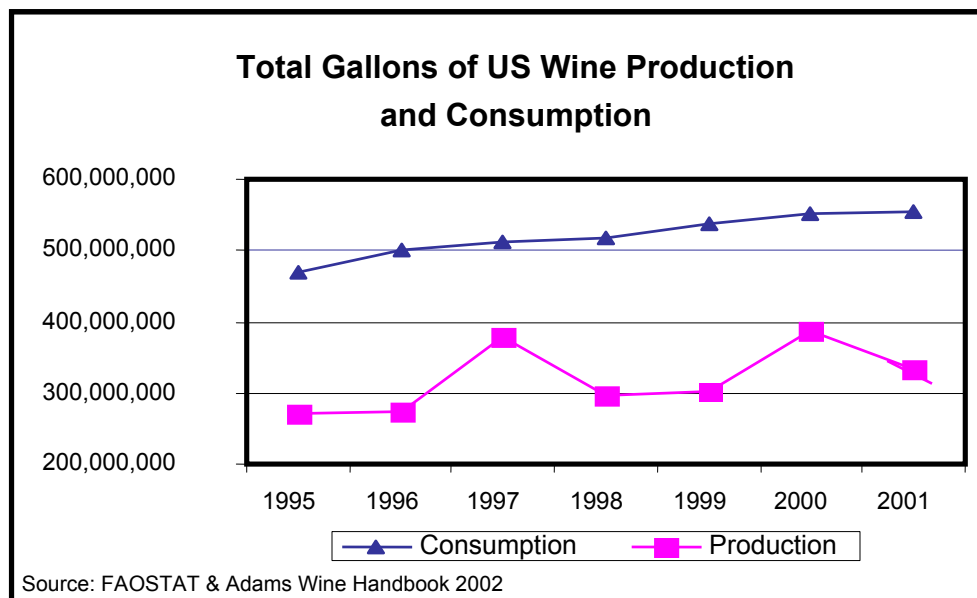


Figure 5

Relative to production, wine consumption in the United States has seen a consistent increase of 18% from 470,696,862 gallons consumed in 1995 to 555,548,740 gallons of consumption in 2001 (Figure 5).

Retail sales of wine in the US during this period have also risen steadily from \$12.2 billion in 1995 to \$21.1 billion in 2002 (Figure 6).

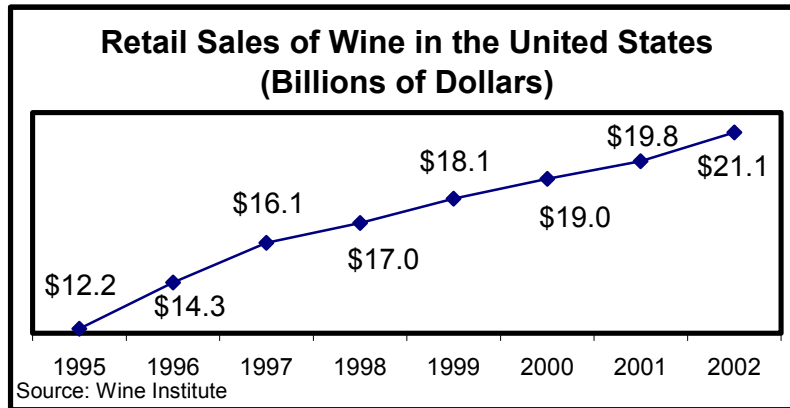


Figure 6

California dominates the wine industry in the United States. Californians consume more wine (18% of US consumption) than any other state, followed by New York (8%), Florida (7.5%), Texas (5%) and New Jersey (4.5%) (Figure 7).

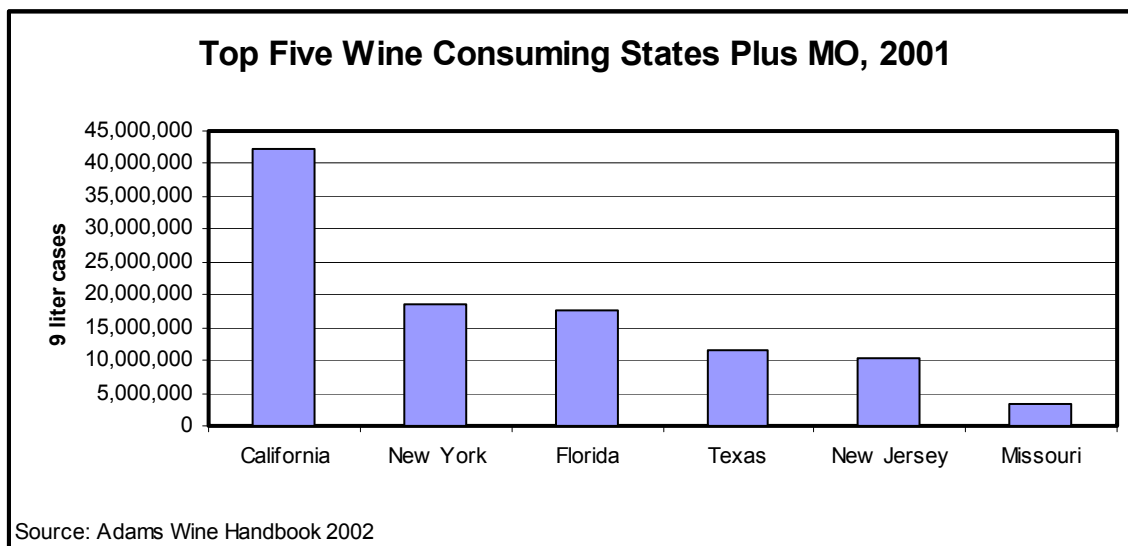


Figure 7

Most of US consumption (89% in 2001) was for table wine, versus coolers, dessert and fortified wines, and sparkling wine.

In terms of demographics for US wine consumption, a higher percentage of women drink domestic wine than men (57% to 43%) (Figure 8).

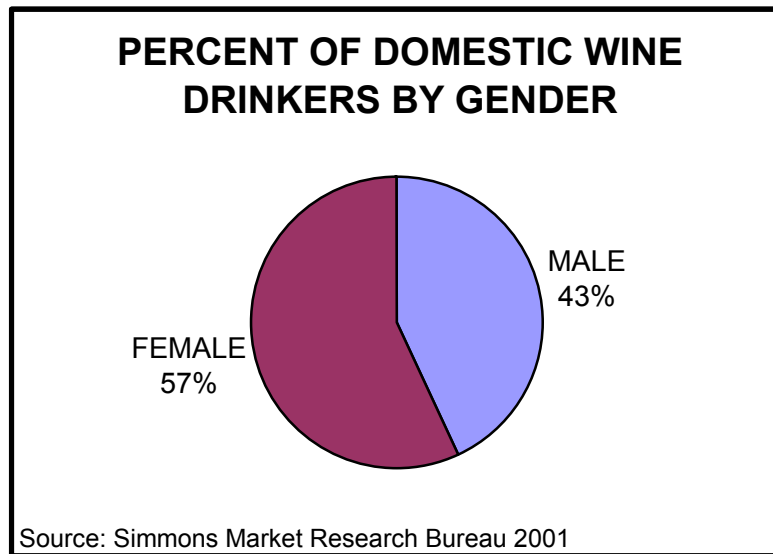


Figure 8

And according to a recent national survey of wine consumers, the Scarborough Wine Market Report, the changing ethnic demographics of the United States are impacting the wine industry. While only 6% of drinking-age adults spent more than \$20 for a bottle of wine, Hispanic wine consumers are 96% more likely to do so, and African-American wine purchasers are 39% more likely to do the same. African-American consumers are 59% more likely to than the average consumer to purchase champagne or sparkling wine, and Hispanics are 13% more likely to do so.

The California-based Wine Industry Financial Symposium Group (2002) learned at their annual meeting that special steps should be taken to market to the Latino population in the United States, which is already larger than the population of all of Canada. The wine industry was surprised to learn that a quarter of Latinos already drink wine. To reach them, however, advertisements need to be in Spanish and need to take into consideration the larger family size and prevalent values of this group, which on the whole is religious, hard working and family-oriented.

While most people might imagine that wine drinkers tend to be older, in fact the Scarborough Report found that 25 percent of American wine purchasers are ages 21 to 34, and nearly half are ages 35 to 54. It appears that the patterns of wine consumption once typical of a leading edge of Baby Boomers, by far the largest population segment in the US, are being more freely adopted across younger American consumers (Merrill Research & Associates, through the Wine Market Council 2003). In fact, a new generation of young adults (age 21-34) gives evidence of a strong preference for wine as part of their lifestyles, indicating that the prospects for continued growth in demand overall are high.

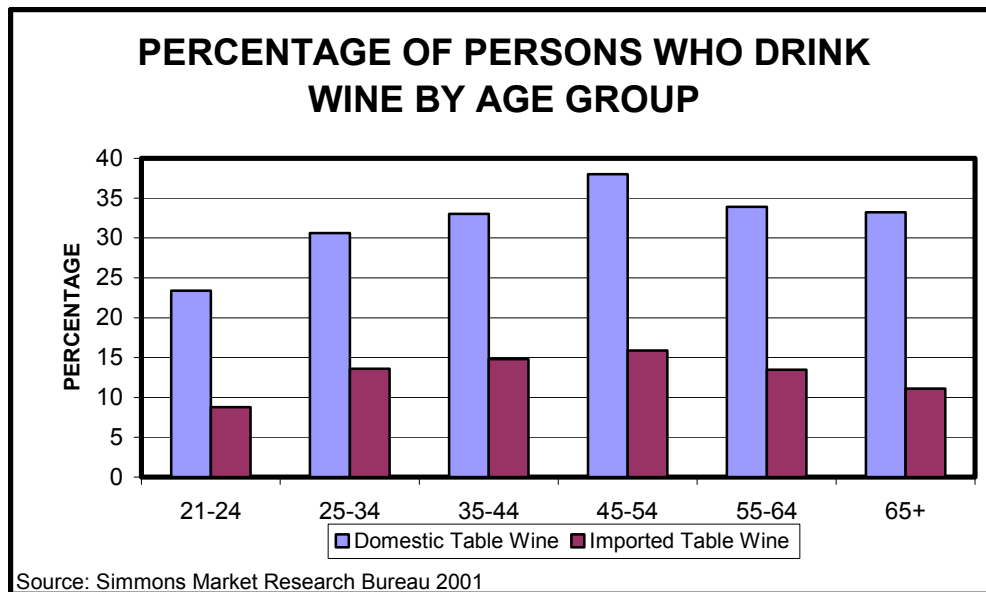


Figure 9

Missouri Wine Production and Consumption

Missouri consumers drink about 1.5% of the wine sold in the United States. While this is only a small portion of the total wine consumed in the US, wine consumption in Missouri has nonetheless increased from 6.7 million gallons in 1995 to 8 million gallons in 2001. Between 1995 and 2001, the amount of wine consumed in Missouri that was produced in the state rose from 304,029 gallons to 487,756 gallons (Figure 10). A percentage of that wine was made with grapes purchased from other states. While in 2001, Missouri vineyards produced 2,300 tons of grapes on 870 bearing acres of land (Missouri Agricultural Statistics Office), market demand indicates that there is still not enough in-state grape production to make the quantity of Missouri wine made from Missouri grapes that the market would absorb.

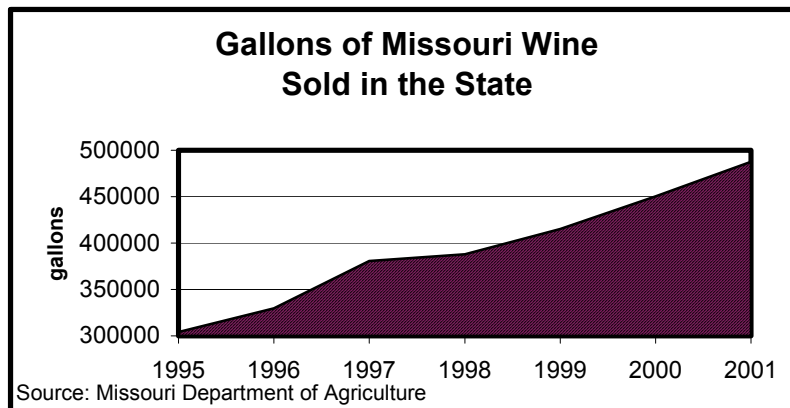


Figure 10

While the increase in consumption of Missouri wine by Missouri consumers is impressive, it nonetheless only accounted for 5.62% of the total wine consumed in the state in 2001 (Figure 11). The remainder came from other states and international sources. Continued steady growth of consumption by loyal regional customers may therefore bode well for the industry as there is room for growth based on in-state consumption figures alone.

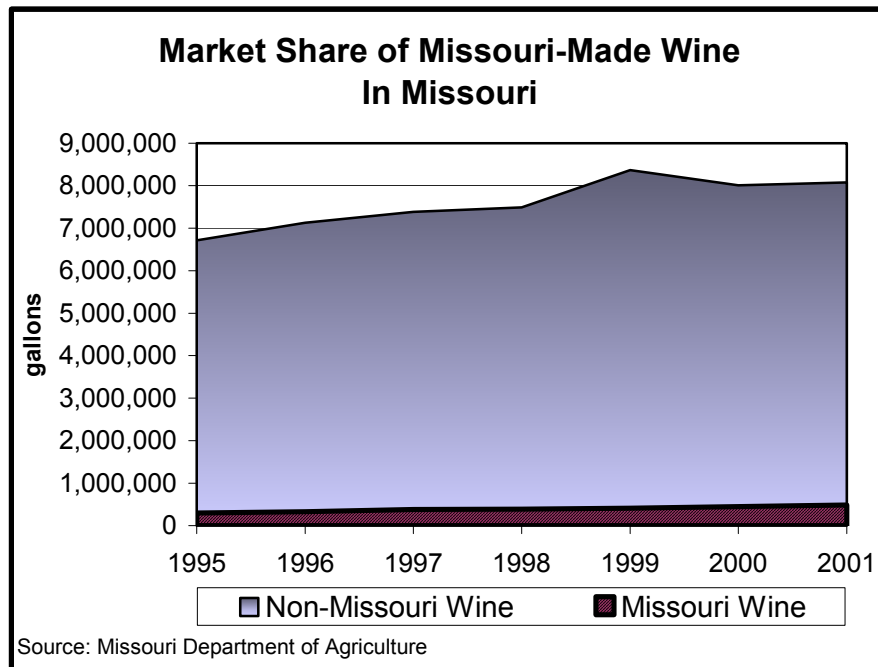


Figure 11

A broader growth in consumption that reaches beyond the state is also well within the reach of Missouri wineries from the point of view of potential future offerings. This is due in part to Missouri's somewhat difficult climate for grape growing, the state's soils, and the types of grapes grown that are adapted to these conditions. The result is an industry that can distinguish itself by producing high quality wines that are somewhat unusual or even unique, a characteristic sought after by higher end wine purchasers. Figure 12 portrays the different types of grape varieties that are produced in Missouri. The list is noticeable for its lack of certain well-known varieties, such as merlot, cabernet and chardonnay, which are produced in great quantity elsewhere.

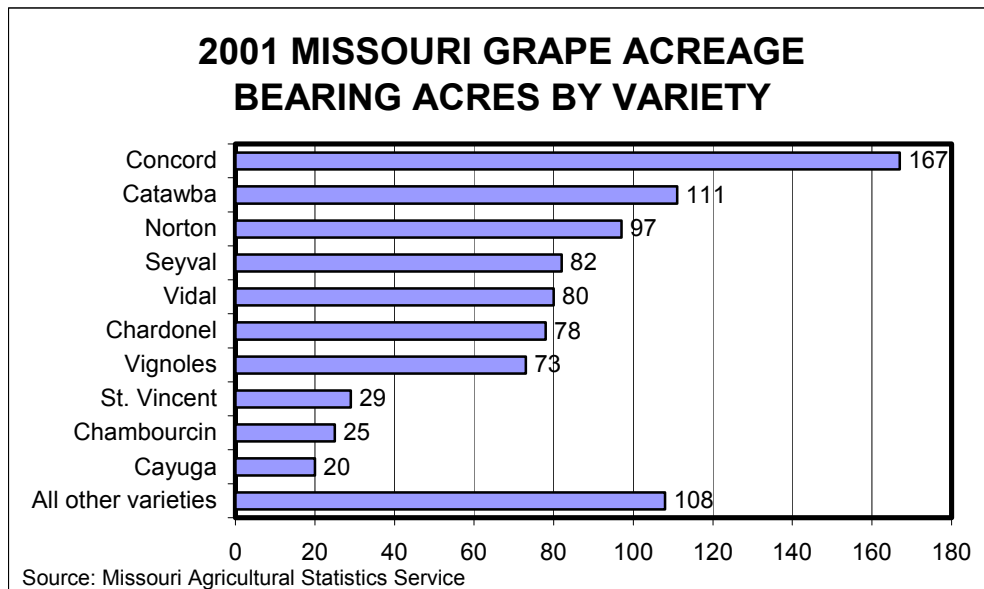


Figure 12

It appears unlikely that Missouri will ever produce the volume of grapes possible in locations such as California. But, given skilled growers, the state is agriculturally capable of producing very high quality grapes to support a wine industry geared towards premium and ultra-premium specialty wines. This observation is confirmed by the growing interest of international buyers purchasing Missouri wines for import, as well as by the impressive awards that have recently be garnered by the industry, a sampling of which are presented in Appendix B.

Economic Impacts of Missouri Wineries on the State

Input/Output Analysis

In order to provide a more accurate economic picture of the effects of the wine industry on Missouri, the survey conducted by Dr. Elizabeth Barham in 2002-03 included a section that gathered financial data for an input/output analysis. The Community Policy Analysis Center at the University of Missouri-Columbia analyzed this data using a computerized input/output program. I/O provides a framework for measuring the linkages among sectors, or industries, in a region's economy. The model is based on observed economic data for a specific geographical area such as a county or state. I/O tracks the links between sectors in terms of the flow of goods, including flows to the final consumer. All industries involve intersectoral linkages of this kind. Missouri wineries, for example, require the use of people, goods and services to create a finished product. I/O helps to capture this broader effect on the economy of a single industry by looking at the flows it generates.

The computer program used for this study is called Impact analysis for PLANning (IMPLAN). IMPLAN contains comprehensive national data that is used to estimate regional data on a county-by-county basis. It is frequently used to generate estimates of total employment and income when a community is interested in knowing the impacts of an economic development event. IMPLAN takes into account the fact that a change in employment or income has a multiplier effect because of the inter-industry linkages in the local economy. IMPLAN measures impacts through these linkages for the key sectors involved with a particular industry. On the next page is a list of the top 10 economic sectors that are affected by wine production as reported by IMPLAN.²

² Domestic and foreign trade sectors were omitted from this list.

- | | |
|----|---|
| 1 | Wholesale Trade |
| 2 | Motor Freight Transport and Warehousing |
| 3 | Glass Containers |
| 4 | Commercial Printing |
| 5 | Real Estate |
| 6 | Banking |
| 7 | Owner-occupied Dwellings |
| 8 | Paperboard Containers and Boxes |
| 9 | Eating & Drinking |
| 10 | Communications- Except Radio and TV |

Multipliers

As an industry consumes goods and services, it creates a final demand. Usually, other industries respond either directly or indirectly to meet this demand. These other industries create additional demand, and so on. For a change in employment or output in one sector in the economy, there will be a certain amount of total change of employment all over the economy. Multipliers are used to help explain these effects. In this study, multipliers for the wine industry were calculated as follows:

Employment	1.66
Output	1.82
Labor Income	1.79

This means that in this study, for every person directly employed in the wine industry, an additional .66 jobs are created elsewhere in the Missouri economy. For every dollar of economic activity (output) by the wine industry, an additional .82 cents of economic activity occurs in the state's economy. And for every dollar of income earned by employees in the wine industry, there is an additional .79 cents in income earned by employees of other economic sectors connected to it.

Direct Economic Impacts

NOTE: One major caveat must be stated in relation to the data presented here. One of the largest wineries in the state, producing approximately 30% of Missouri's total wine gallons in 2001, declined to participate in the financial portion of the survey on which these figures are based. What this means is that the figures, while impressive, reflect a level of impact on the state's economy that is much lower than the industry's true impact, perhaps by a factor of as much as one third. The reader is encouraged to bear this in mind throughout the remainder of this section.

Using the actual survey results, it is estimated that the Missouri wineries surveyed directly support 156 jobs with a total payroll of over \$3.6 million. These numbers represent the people employed in the wine industry and their salaries. The direct economic output of these establishments in terms of dollars spent by them totals almost \$13.6 million.

Direct	
Employment	156
Output	\$ 13,594,501
Labor Income	\$ 3,646,294

Indirect Economic Impacts

These wineries also buy goods and services from other companies to create a finished product. For example a winery may purchase bottles, labels, chemicals for fermentation, etc., in order to actually produce a finished product ready for the retail

market. In the survey we asked what percentage of these goods and services were purchased in Missouri. We were therefore able to establish a regional (Missouri) purchase coefficient (RPC) that was derived from business owner knowledge (as opposed to the default one provided by IMPLAN). These purchases produce effects that are called indirect effects and consist of the additional employment and personal income that occur from business-to-business transactions. Through the business-to-business transactions that were reported in the survey we estimate that the wineries indirectly generate an additional 35 jobs, over \$2.8 million dollars in business output, and over \$1 million dollars in labor income in the state of Missouri.

Indirect	
Employment	35.4
Output	\$ 2,854,884
Labor Income	\$ 1,066,003

Induced Economic Impacts

Induced economic effects occur as those people employed in a sector spend their personal income for goods and services in the local area. An example would be a winery employee who spends his or her own personal income at the local grocery store or shopping mall. Based on the survey, expenditures by employees of Missouri wineries induce an additional 67 jobs in the larger state economy, along with an additional \$8.2 million dollars of business output and \$1.8 million dollars of labor income for workers in other industries.

Induced	
Employment	67.1
Output	\$ 8,245,206
Labor Income	\$ 1,816,390

Total Economic Impacts

When one considers all of these effects together (direct, indirect and induced), Missouri wineries create a total of 259 jobs in the state, generate an economic output of \$24.6 million, and contribute \$6.5 million in income to Missouri workers.

	Total
Employment	258.5
Output	\$ 24,694,591
Labor Income	\$ 6,528,687

Assessing Spin-out Effects

While the indirect and induced effects discussed above reflect the impact of Missouri's wine industry on directly related sectors, it is much more difficult to capture the effects of this industry on the broader web of businesses that benefit from it. Chief among these is hospitality and tourism. This would include restaurants and cafés, hotels and B&Bs, festivals, fairs, state historical and cultural sites, state parks, outdoor recreation providers and shopping centers, to name a few. These connections are discussed more fully in the following section on Future Trends, but suffice it to say that Missouri's wineries are leading taste makers in the state and represent a key tourist attraction. As such, their activities touch a broad spectrum of state businesses.

Future Trends That Will Affect Missouri Wineries

Regionalization

By now, Missourians are well aware of the phenomenon of globalization, whether or not they make use of the term. Economically speaking, globalization primarily refers to the increasing integration of local businesses with larger national and international business concerns, often including mergers and business concentration. While no individual business, or town, can be said to be completely independent of these forces, they present particular challenges for rural areas. This is often due to the lower density of population in rural areas that can impinge on effective communications as well as discourage the establishment of cooperative business frameworks that can provide important advantages to business development. Globalization also means a more footloose movement of capital investment, and in the effort to attract outside investment capital many rural areas find themselves at a disadvantage due to lack of appropriate infrastructure and modern transportation routes, as well as lower levels of human capital.

While economic globalization conjures up images of homogenization and standardization, many scholars and business experts have observed that a movement in the opposite direction—towards regional differentiation—can be simultaneously observed. One form of regionalization can be negative, entailing a decline in local communities in rural areas as young people leave for jobs elsewhere, employment and incomes drop, and the level of local services such as health care and education deteriorate. Regions caught in this process experience a sense of isolation that can leave them feeling marginalized.

But regionalization can be an important way to proactively counter impacts of globalization by building a critical mass of interconnected businesses that, together, can map a strategy for their future. While a single small or medium-sized business acting alone cannot put into motion the partnerships with government and education that can secure that future, a viable network of regional businesses connected across sectors can. Such frameworks have been identified as lying behind many successful regional rural development efforts in the US and abroad.

The Center for the Study of Rural America (2002) within the Federal Reserve Bank of Kansas City recently held a conference that revolved around the theme of the importance of regionalization for the future of rural economies. It recognized both the challenges and the benefits to this kind of approach, pointing to the need for regional leadership to secure skill building for entrepreneurs and research inputs from universities, planning and funding for key infrastructure, a new valuing of rural amenities, the protection of open space and farmland, and a renewed attention to the “sense of place.”

Regional Food Cuisines

As policy makers, government agencies and university leaders prepare to invest in regional approaches to development, Missouri’s wineries have the opportunity to play a key leadership role. They can do this because their particular enterprises act as connection points among several aspects of rural culture: farming (grape production), landscapes (vineyards), craft (the art of winemaking itself), gastronomy (restaurant and food businesses), tourism (particularly agritourism), and the conviviality that sharing time and enjoyment with friends and family can bring. Wine also helps define its place through what is called the “terroir” effect, meaning that the taste of the wine reflects the land and climate in which the grapes were grown. And yet while wine is strongly connected to place, it also travels to urban consumers somewhat like a regional ambassador. For all of these reasons, it is little wonder that few businesses are as versatile in their contributions to defining rural place as wine production.

One of the many strategies for regionalizing rural economies that is building momentum and has special bearing on the future of Missouri’s wine industry is that of building more localized food systems (Halweil 2002). In the United States, results from a number of studies point to an increasing consumer demand for “local” foods of all kinds (Community Farm Alliance 2003; Lehman 2003). Many initiatives and programs are already underway that move in the direction of creating more community-based food systems (Green and Hilchey 2002). Many of these efforts involve the rediscovery and celebration of regional cuisines, such as the Slow Food movement that began in Europe

and has since established itself firmly in the United States, growing over the past few years to a worldwide membership of over 65,000 on five continents (Kummer 2002).³

What Slow Food reflects is a growing public interest in reconnecting with the pleasures and sense of connection that special or traditional products from rural areas can bring. Usually, such products are high quality, or what is known as “value-added” in agricultural terms. They would include many of the products that Missouri wineries are already serving and selling in their tasting rooms, such as local sausages and other meats, cheeses, breads, jams, jellies, condiments such as locally-made mustard, nuts, honey and candies. Pairing these products with Missouri wines is a win-win situation for both sides.

The Missouri Department of Agriculture has long supported promotion of special products from the state through its AgriMissouri labeling program. Recently, the department initiated the AgriMissouri Chef Contest to recognize culinary experts who feature local Missouri products among their menu items. The program contributes to greater public awareness of the rich variety and high quality of many food products available in the state. Because of the high degree of diversity in Missouri’s natural regions and their agricultural capacity, it will not be surprising to see a sense of regional food identity emerging naturally in the coming years as visitors, as well as old and new residents, explore the best of what the state has to offer in local foods and wines. If wine producing areas in the state see an opportunity in defining their regional cuisine more consciously as a promotional strategy, the present moment seems to lend itself exceptionally well.

The Growth of Agritourism

An additional trend that further bolsters the case for considering a more regional approach to wine promotion in Missouri is the strong growth in agritourism being witnessed in the United States. Tourism is one of the top three industries in Missouri-- manufacturing and agriculture are the other two (Missouri Division of Tourism 2002). As such, tourism makes a major financial contribution to the state, bringing in \$5.5 billion dollars in direct domestic tourism spending in 2002 (Figure 13).

³ To find out more about Slow Food in the US, visit their website at <http://www.slowfoodusa.com>. Several chapters are already active in Missouri.

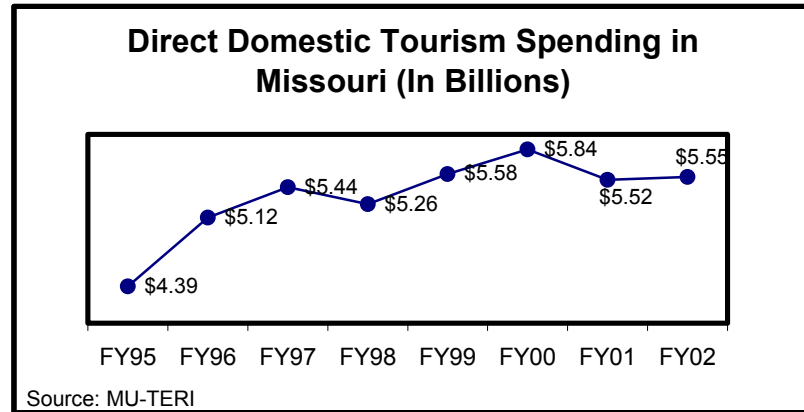


Figure 13

The attraction of Missouri's wineries plays a part in drawing over 34 million visitors to the state annually. The state is particularly strong in regional tourism, ranking among the top three states in the region in its share of domestic tourism expenditures (see Figure 14).

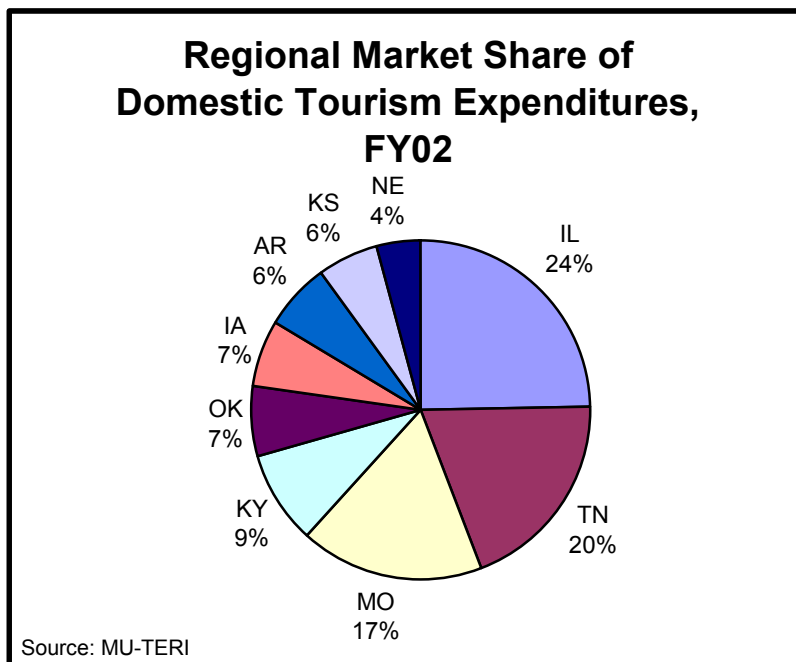


Figure 14

Since the events of September 11, 2001, shook the country, Americans are showing a preference for family vacations closer to home. They are also choosing locations that they can reach in a reasonable time by car. Because it is so centrally located and can offer a wide variety of experiences that span the urban (St. Louis, Kansas City, Branson) and rural (Katy Trail, Ozark Mountains, numerous rivers and float streams), Missouri is a logical candidate for strong growth in rural tourism. Its wealth of cultural, historical and natural offerings can easily provide the mix of activities that tourists seek (see Figure 15). Many of these activities link naturally with winery visits, such as outdoor activities in rural areas, visits to national or state parks, enjoyment of the many historical towns and sites in the state, and attending festivals, some of which feature Missouri wines prominently.

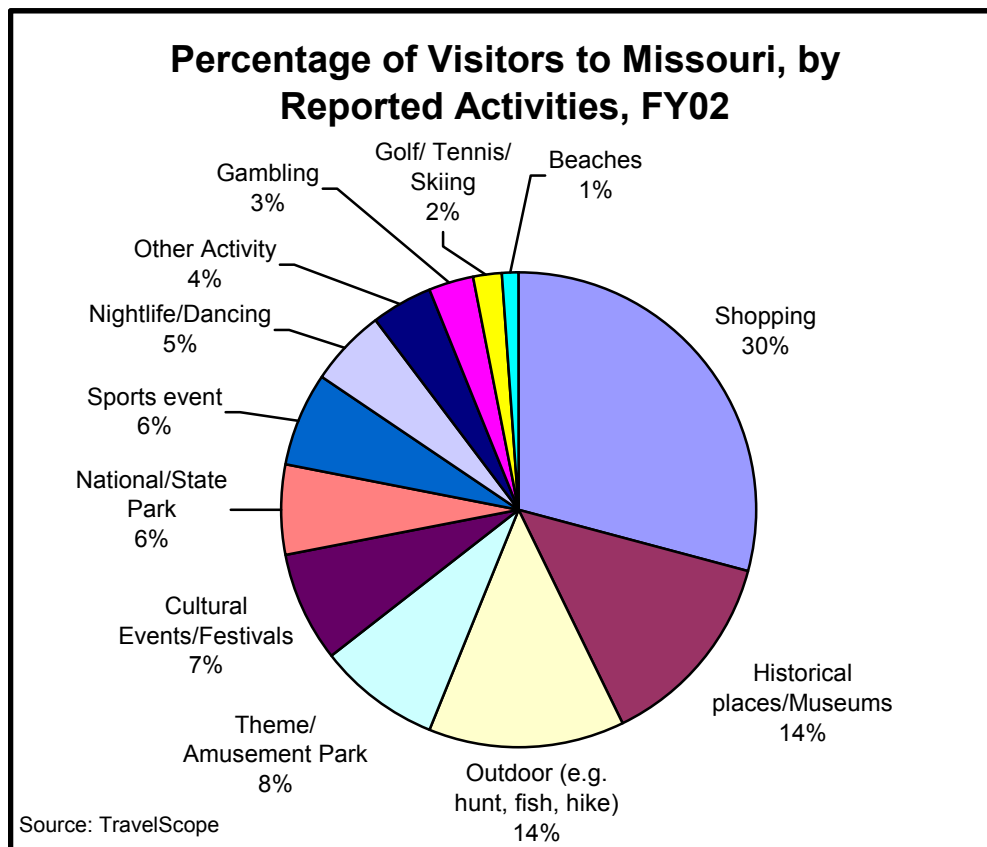


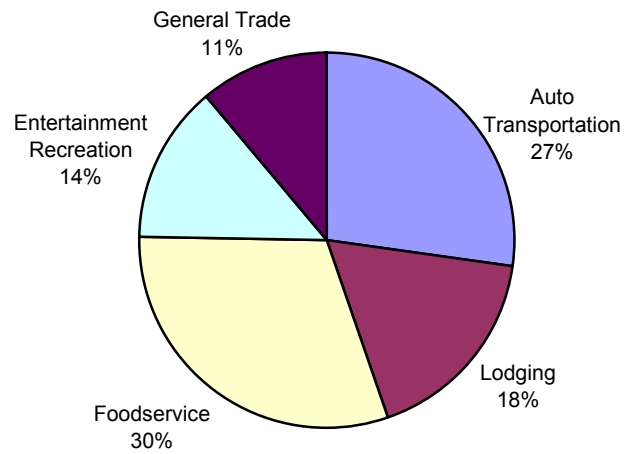
Figure 15

Beyond general rural tourism lies the more specific realm of agritourism, which includes a wide array of alternative enterprise and nature tourism opportunities that farmers are entering into to strengthen both the profitability and sustainability of their land.⁴ Agritourism is of particular interest to Missouri because the state was second in the nation in the total number of farms in 2002, and many of those farms are small or medium-sized family farms (Missouri Agricultural Statistics Service 2002). The state's prospects for agritourism were recently recognized within Missouri's Department of Agriculture by the formation of the Missouri Agritourism Council. The Council will meet twice a year to provide insight on marketing trends, program development and other opportunities. A guide to Missouri agritourism locations is already available from MDA (Missouri Country Adventures 2002), and the department has held a series of agritourism conferences over the past year to inform farmers and others interested in participating in this new aspect of the rural economy.

Agritourism, like rural tourism more generally, is a landscape-oriented market. Visitors seek and appreciate the appearance of well-kept farmland and healthy forests and streams. Just as in Europe, a countryside that includes a number of vineyards in harmony with their surroundings is a particularly appealing sight. By forming stronger regional linkages between agritourism offerings such as on-farm visits and stays, farmers markets, and U-pick farms, wineries could be an important tool to increase tourist expenditures in rural regions. The overall goal is to create the sense of a region to explore, with many things to do, so that visits extend over more time and are repeated. Tourism research reveals that nearly 50% of tourist dollars are spent on food and lodging (see Figure 16), and wine is definitely part of that picture. By reinforcing a sense of regional cuisine and regional identity, Missouri wineries help create the possibility of a more interwoven marketing of agritourism that can ensure that tourism continues to contribute to the state's rural economies. This brings benefits to the wineries, as well, as it serves the well-recognized goal of creating regional wine routes that boost sales by moving wineries into the category of tourism destinations (Getz 2000).

⁴ A number of resources are available by searching on the term "agritourism" on the website of the Natural Resources Conservation Service: <http://www.nrcs.usda.gov/>.

Average Percentages of Travel Expenditures, by Category, FY02



Source: MU-TERI

Figure 16

Recommendations for Building Missouri's Wine Industry

To get the best advantage from the regionalization approach described here will require increased communication and cooperation among private industry, government and education. Cross-sectoral alliances will have to be actively pursued to share knowledge and set mutual goals, and to create regional entities that can join with state agencies and universities to seek grants and other sources of support for building regional rural tourism. While clearly this is not something the wineries can do alone, they are nonetheless in a strong position to lead such an effort as their product will inevitably lend a certain reputation and branding to any region.

Issues of quality control will have to be addressed, not only for the state's wineries but for other businesses involved in the regional network. While some of the state's larger wineries are already producing wines of exceptional quality, some smaller wineries could use more assistance in improving the overall quality of their offerings. Because Missouri is not likely to become a major producer of mass marketed wines like California or Australia, it will need to pay particular attention to differentiating itself on the basis of very high quality and uniqueness.

A recent issue of *California Agriculture* praised the performance of specialty crops and value-added products as a "bright spot" for the state, and featured a story on wine and artisan cheese (Heien and Martin 2003). The authors noted that "The 21st-century wine industry may operate at very different speeds, with one segment enjoying record profits while another uproots unprofitable grapes." Part of the reason for this is the pressure of globalization, but another is the changing face of consumer preferences. As more consumers become knowledgeable about wine, the market segments further between what are called "jug" wines or lower-priced varietals that are produced in large quantity, and higher end premium and ultra-premium wines. Ongoing consolidation in the industry reflects this trend, as well, with many medium-sized wineries being consolidated into larger enterprises, while small wineries turn increasingly to agritourism and Internet trade for the increased profit from high quality wines that direct sales can bring.

It would appear that Missouri wineries would do well to aspire to the latter category—that is, to go for quality and distinctiveness. This means higher quality at the level of grape production as well as putting in place a process for continually improving the quality of Missouri wines across *all* wineries. The goal is for no one visiting a wine region in the state to fall on a “bad” wine, but rather that regions as a whole develop a reputation for quality. But making great wine will not be enough without the shared pursuit of quality by all concerned in a regional agritourism effort—good wine and bad food still spells a bad experience for visitors.

To create the kind of diversified regional strengths that will eventually provide compounded benefits for all involved will require new ways of sharing and gathering data about how the region’s agritourism businesses are performing. It will also require new forms of joint goal-setting and ways of monitoring progress towards those goals, so that regions can begin to get a more unified picture of their successes and their impacts. All of this means better communication and cooperation within rural regions, as well as between regions and outside entities such as state and federal agencies. If the state and its rural regions hope to benefit from the rise of Missouri wines, as well they might, they will need to do more to communicate the needs of the wine and agritourism industries to state lawmakers and government agencies so that they can put opportunities within their reach and address their problems. These recommendations are nothing new, and other regions in the US and abroad have come to much the same conclusion: networking in strategic alliances within regions can make all the difference (Che 2003; Finger Lakes Grape Program 2001; Morris 2000; Telfer 2000).

Finally, no approach to economic development, including one as appealing as wine routes and on-farm visits, is without its darker sides, and these will have to be addressed as well. Among them are labor issues. Wineries as well as other tourism enterprises require some seasonal workers, and jobs for these workers may be precarious, low paying and low skilled. Seasonal workers can also put a burden on local housing availability, as well as on local services such as education and health care. “Too much” success” at attracting tourism can produce overcrowding at certain times of the year. And too much demand for a popular agricultural product can put a strain on the

environment if it leads to overproduction in relation to the land resources. Missouri would do well to learn from the experience of Napa Valley on all of these counts, and engage in careful planning to achieve the level of success that its rural regions desire and feel prepared to accommodate.

Conclusions

While much has been accomplished, much remains to be done. The wine industry in Missouri already enjoys the outstanding support of the Missouri Department of Agriculture's Grape & Wine Program. The Division of Tourism within Economic Development continues to promote the industry and the state's wineries as destinations for visitors. This report has suggested that taking steps towards a regional approach to marketing, linked to agritourism, could bring benefits to the future growth of the Missouri wine industry. A regional approach would take best advantage of the strengths Missouri enjoys for agritourism in terms of its central location in the United States, its diversified landscapes and large number of small farms, its rich and varied cultural heritage, and the presence in the state of important urban centers that can connect visitors to rural regions. At the same time, expansion of the wine industry and agritourism in Missouri will build the attractiveness of the state's rural regions for other aspects of economic development because the availability of these amenities can help draw and retain the educated workforce needed to move the state into the future.

The future looks bright for Missouri wineries, and the coming years may well see the industry become a key player in US quality wine markets. The state's wineries already play a key role in the larger context of regional and state development. They have earned this role through the rich history of wine production in the state as well as through the hard work of today's winemakers. With the support of state leaders, this sector is poised to go even further, infusing energy and refinement into other undertakings along the way.

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Appendix A: A List of Missouri Wineries

1. Adam Puchta Winery
1947 Frene Creek Road
Hermann, MO 65041
Phone: (573) 486-5596
Fax: (573) 486-2361
E-mail: Sales@APuchtaWine.com
www.adampuchtawine.com
2. Augusta Winery
High & Jackson Streets, P.O. Box 8
Augusta, MO 63332
Phone: (636) 228-4301 or (888)
MOR-WINE
www.augustawinery.com
3. Bias Winery & Gruhlke's
Microbrewery
P.O. Box 93
Berger, MO 63014
Phone: (573) 834-5475 or (800) 905-
2427
www.biaswinery.com
4. Blumenhof Vineyards
P.O. Box 30
Dutzow, MO 63342
Phone: (636) 433-2245 or (800) 419-
2245
www.blumenhof.com
5. Bommarito Estate Almond Tree
Winery
3718 Grant School Road
New Haven, MO 63068
Phone: (573) 237-5158
6. Bristle Ridge Vineyards & Winery
P.O. Box 95
Knob Noster, MO 65336
Phone: (660) 422-5646
7. Buffalo Creek Vineyard & Winery
29003 Possum Trot Road
Stover, MO 65078
Phone: (800) 247-1192 or (573) 377-
4535
Fax: (573) 377-2262
www.buffalocreekwinery.com
8. Bynum Winery
13520 S. Sam Moore Road
Lone Jack, MO 64070
Phone: (816) 566-2240
9. Crown Valley Winery
23589 State Route WW
Ste. Genevieve, MO 63670
Phone: (573) 756-WINE
Fax: (573) 756-2131
www.crownvalleywinery.com
10. The Eagle's Nest Winery
221 Georgia Street
Louisiana, MO 63353
Phone: (573) 754-9888
E-mail: [ReflectionsofMO@Big-
River.net](mailto:ReflectionsofMO@Big-River.net)
11. Ferrigno Winery
17301 State Route B
St. James, MO 65559
Phone: (573) 265-7742
E-mail: Ferrigno@fidnet.com
12. 4-M Vineyard & Rosati Winery
22050 State Road KK
St. James, MO 65559
Phone: (573) 265-6892 or (573) 265-
8147

13. Gloria Winery
11185 Stave Mill Road
Mountain Grove, MO 65711
Phone: (417) 926-6263
14. Heinrichshaus Vineyard & Winery
18500 State Route U
St. James, MO 65559
Phone: (573) 265-5000
www.heinrichshaus.com
15. Hermannhof Winery
P.O. Box 251
Hermann, MO 65041
Phone: (573) 486-5959 or (800) 393-0100
www.hermannhof.com
16. La Dolce Vita Vineyard & Winery
72 Forest Hills Drive
Washington, MO 63090
Phone: Winery (636) 239-0399
Tasting room: (636) 390-8180
Fax: (636) 390-8180
www.ladolcevitawinery.com
17. Les Bourgeois Winery & Vineyards
P.O. Box 118
Rocheport, MO 65279
Phone: (800) 698-1830 or (573) 698-2133
Fax: (573) 698-2174
E-mail: Info@MissouriWine.com
www.missouriwine.com
18. Little Hills Winery & Restaurant
501 South Main Street
St. Charles, MO 63301
Phone: (636) 946-9339 or (877) LT-HILLS
www.little-hills.com
19. Louis P. Balducci Vineyards
6601 Highway 94 South
Augusta, MO 63332
Phone: (636) 482-8466 (VINO)
www.balduccivineyards.com
20. Meramec Vineyards
600 State Route B
St. James, MO 65559
Phone: (573) 265-7847 or (877) 216-WINE
Fax: (573) 265-4404
E-mail: Mervine@fidnet.com
www.meramecvineyards.com
21. Montelle Winery at Osage Ridge
201 Montelle Drive at Hwy. 94, PO Box 147
Augusta, MO 63332
Phone: (636) 228-4464 or (888) 595-WINE
www.montelle.com
22. Montserrat Vineyards
104 N.E. 641
Knob Noster, MO 65336
Phone: (660) 747-0466
E-mail: MontVin@iland.net
23. Mount Pleasant Winery
5634 High Street
Augusta, MO 63332
Phone: (636) 482-WINE or (800) 467-WINE
Fax: (636) 228-4426
E-mail: Mailto@MountPleasant.com
www.mountpleasant.com

24. Native Stone Winery & Bull Rock Brewery
4317 Native Stone Road
Jefferson City, MO 65109
Phone: (573) 584-8600
Fax: (573) 584-9752
E-mail: info@NativeStoneWinery.com
www.nativestonewinery.com
25. OakGlenn Vineyards & Winery
1104 OakGlenn Place
Hermann, MO 65041
Phone: (573) 486-5057
www.oakglenn.com
26. Peaceful Bend Vineyard
1942 Highway T
Steelville, MO 65565
Phone: (573) 775-3000
E-mail: Peaceful@misn.com
www.peacefulbendvineyard.com
27. Phoenix Winery & Vineyards
1840 Hwy 50
Owensville, MO 65066
Phone: (573) 437-6278
E-mail: gheeb@fidnet.com
28. Pirtle Winery
502 Spring Street
Weston, MO 64098
Phone: (816) 640-5728
Fax: (816) 386-5319
www.pirtlewinery.com
29. River Ridge Winery
P.O. Box 118 (County Road 321)
Commerce, MO 63742
Phone: (573) 264-3712
www.riverridgewinery.com
30. Röbller Vineyard Winery
275 Röbller Vineyard Road
New Haven, MO 63068
Phone: (573) 237-3986
www.robllerwines.com
31. Sainte Genevieve Winery
245 Merchant Street
Ste. Genevieve, MO 63670
Phone: (573) 883-2800 or (800) 398-1298
Fax: (573) 483-2012
E-mail: stgenwinery@ldd.net
www.saintegenevievewinery.com
32. St. James Winery
540 Sidney Street
St. James, MO 65559
Phone: (800) 280-9463 or (573) 265-7912
E-mail: info@StJamesWinery.com
www.stjameswinery.com
33. Stone Hill Winery-Branson
601 State Highway 165
Branson, MO 65616
Phone: (417) 334-1897 or toll free (888) 926-WINE
www.stonehillwinery.com
34. Stone Hill Winery-Hermann
1110 Stone Hill Highway
Hermann, MO 65041
Phone: (800) 909-WINE
www.stonehillwinery.com
35. Stone Hill Winery-New Florence
485 Booneslick Road
New Florence, MO 63363
Phone: (573) 835-2420
www.stonehillwinery.com

36. Stonehaus Farms Winery
24607 N.E. Colbern Road
Lee's Summit, MO 64086
Phone: (816) 554-8800
Fax: (816) 524-1303
E-mail:
winery@stonehausfarms.com
www.stonehausfarms.com

37. Sugar Creek Winery & Vineyards
125 Boone Country Lane
Defiance, MO 63341
Phone: (636) 987-2400
Fax: (636) 987-2051
www.sugarcreekwines.com

38. Summit Lake Winery
1707 S. Summit Drive
Holts Summit, MO 65043
Phone: (573) 896-9966
E-mail:
drinkwine@SummitLakeWinery.com
www.summitlakewinery.com

39. Thornhill Vineyards
15 East Main
Hartsburg, MO 65039
Phone: (573) 657-4295

40. Tower Rock Winery
10769 Highway A
Altenburg, MO 63732
Phone: (573) 824-5479
Fax: (573) 824-9999
E-mail: wine@Tower-Rock-Winery.com
www.tower-rock-winery.com

41. Villa Antonio Winery
3660 Lindhorst Road
Hillsboro, MO 63050
Phone: (636) 475-5008
www.villaantoniowinery.com

42. Wenwood Farm Winery
1132 Brick Church Road
Bland, MO 65104
Phone: (573) 437-3443
E-mail: TheFarm@fidnet.com
www.wenwoodfarmwinery.com

2002-2003 New Wineries

1. Baltimore Bend Vineyard
27150 Highway 24
Waverly, MO 64096
Phone: (660) 493-2861
E-mail:
BaltimoreBend@yahoo.com
www.baltimorebend.com
2. Charleville Vineyards
16937 Boyd Road
Ste. Genevieve, MO 63670
Phone: (573) 756-4537
3. Chaumette Vineyards & Winery
24345 State Route WW
Ste. Genevieve, MO 63670
Phone: (573) 747-1000
www.chaumette.com
4. Eichenberg Winery
103 North Olive
Cole Camp, MO 65325
Phone: (660) 668-3511
www.eichenbergwinery.homestead.com
5. Hemman Winery
13022 Highway C
Brazeau, MO 63737
Phone: (573) 824-6040

Appendix B: 2003 Awards and Achievements Of Missouri Wineries

Seven Missouri wineries received a total of 30 medals in the San Diego National Wine Competition held April 26 and 27. This was the 20th anniversary of the competition, which featured 2,733 wines from 577 wineries. Missouri wineries received a total of 2 Best of Class awards, 5 gold medals, 9 silver and 14 bronze medals. Winners were:

Montelle Winery, Augusta
St. James Winery, St. James
Röbller Vineyard, New Haven
Stone Hill Winery, Hermann

Adam Puchta Winery, Hermann
Augusta Winery, Augusta
Crown Valley Winery, Ste. Genevieve

At the Riverside International Wine Competition held May 3 and 4 in Riverside, Calif., six Missouri wineries received a total of 35 medals. Forty-two judges evaluated 2,572 wine entries from 508 wineries. Missouri wineries received a total of 2 Best of Category awards, the Chairman's Award, 2 gold medals, 16 silver and 14 bronze medals. Winners:

Montelle Winery, Augusta
St. James Winery, St. James
Stone Hill Winery, Hermann

Augusta Winery, Augusta
Sainte Genevieve Winery, Ste. Genevieve

Augusta Winery's 2001 Chardonnay recently was named the Best USA Wine in a white wine competition hosted by Selection, a German wine magazine. Montelle Winery's 2001 Dry Vignoles was the runner up. Both wineries are located in Augusta. Selection magazine's annual competition featured more than 900 premium white wines from 27 regions around the world.

Five Missouri wineries joined more than 2,800 exhibitors from 40 countries at ProWein 2003. Augusta, Montelle, Mount Pleasant, St. James and Stone Hill wineries exhibited in the Midwest-USA wine pavilion, sponsored by the Mid-America International Agri-Trade Council (MIATCO). The show attracted more than 25,000 visitors, primarily from Germany.

The German market got its first taste of Missouri wine following last year's ProWein 2002, a trade show for wines and spirits in Dusseldorf, Germany. That show resulted in the sale of 615 cases of Missouri wine to Germany, the first to arrive in the country since Prohibition. Augusta Winery sold 355 cases of wine, while St. James and Stone Hill wineries each shipped 120 cases. Montelle Winery rounded out the shipment with 20 cases of wine.

*** To stay current on the most recent awards received by Missouri wineries and find award details, visit the News section of the Missouri Department of Agriculture Grape & Wine program website (<http://www.missouriwine.org/>).

Appendix C: Details on Methodology of the Missouri Wineries Survey

Input/Output Analysis

Input-output (I/O) computer modeling was first developed in the late 1930s and has become widely used in regional economics since that time. With I/O there is a fixed proportion of inputs for each unit of output. Fixed proportions imply there are no substitutions between inputs, regardless of price changes or new technology. In addition, all the firms in a sector are assumed to need the same average mix of inputs. For example, if a sector called "vehicle construction" included firms that produce full-sized trucks and firms that produce golf-carts, I/O assumes the same proportion of inputs, capital, and labor are used in both types of firms. Fixed proportions also signify that small and large producers have the same input mix and efficiency in production. Another assumption is constant returns to scale. That is, in order for output to double, all of the inputs used in production must double. Also, because there are no resource constraints, there is no assumed production capacity.

I/O for the Missouri Survey

The input/output computer analysis presented here was conducted by the Community Policy Analysis Center (CPAC) of the University of Missouri-Columbia. Survey questions about payroll, number of employees, and purchases made in order to produce a finished product were prepared by CPAC and included in the survey conducted by Dr. Barham. Once completed, the surveys were tabulated and members of CPAC assigned the various inputs to appropriate economic sectors inside the IMPLAN model. The model was then run and resulted in defining the economic effects of the wine industry in Missouri.

It is important to note that not all wineries in the state were surveyed or responded to the survey for the financial data. A ranked order listing of wineries based on gallons of production in 2001 was used to determine those contributing 95% of the state's total production, and these were the wineries approached directly. The effects of the remaining 5% of production were extrapolated from the figures obtained in this way.